UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-28* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

In view of the appeal brief filed on 10/14/2008, PROSECUTION IS HEREBY REOPENED. A new action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2434

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,8, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kouznetsov.

Regarding Claim 1, 8, 16

Kouznetsov (7096501) teaches a method of operating a plurality of virus checkers for

on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the

method comprising:

Combining on-demand anti-virus scan requests and on-access anti-virus scan

requests in a virus scan request queue; *(Figure 9 shows concurrent on-demand and on-*

access scan requests)

Distributing the on-demand anti-virus scan requests and the on-access virus

scan requests from the virus scan request queue to the virus checkers *(Figure 2 shows*

the on-access and on-demand scanner distributing scan requests to virus checkers)

Claims 1-3, 6, 8-10, 16 are rejected under 35 U.S.C. 102(e) as being anticipated

by Smithson.

Regarding Claims 1-3, 8-10, 16

Smithson (6802012) teaches a method of operating a plurality of virus checkers for on-

demand anti-virus scanning concurrent with on-access anti-virus scanning, the method

comprising:

Combining on-demand anti-virus scan requests and on-access anti-virus scan

requests in a virus scan request queue *(Fig. 2 is a flow diagram illustrating the allocation of*

a priority level by the anti-virus system. At step 10 a file access request is received from the

operating system file service. At step 12 a check is made to whether the file access request is

the result of an on-demand scan or is a result of normal operation of the computer system,

Column 4, in particular lines 50-55)) ;

Distributing the on-demand anti-virus scan requests and the on-access virus

scan requests from the virus scan request queue to the virus checkers

("The scan controller also operates to select the next pending scan request to be processed

from the pending scan list and pass this information to the scan engine. The scan controller

selects the oldest high priority scan stored within the pending scan list" Column 5, in particular

lines 46-50)

Wherein the on-access anti-virus scan requests are produced in response to

user access to files *(See Figure 2, also "In the case of a normal file access request, the*

computer user associated with the scan request may be the file access request" Abstract)

Wherein the on-demand anti-virus scan requests are produced in response to a

system administrator requesting a scan of files within a specified file system *(The*

originator or the on-demand task will typically be the system administrator, Column 3, in

particular lines 37-41)

Regarding Claim 6,

Smithson teaches the method of claim 1 which includes grouping the on-demand anti-

virus scan requests into chunks, each of the chunks including multiple ones of the on-

demand anti-virus scan requests and placing the chunks onto the virus scan request

queue. *(Figure 2 of Smithson teaches placing on-demand scan requests into a queue, Figure 3*

shows the "chunks")

Claims 1-16, 18-28 are rejected under 35 U.S.C. 102(e) as being anticipated by

McAfee ("Groupshield and the Microsoft Virus Scanning API" May 1, 2002).

Regarding Claim 1, 8

McAfee teaches a method of operating a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the method comprising:

Combining on-demand anti-virus scan requests and on-access anti-virus scan requests in a virus scan request queue;

Distributing the on-demand anti-virus scan requests and the on-access virus scan requests from the virus scan request queue to the virus checkers

("In virus scanning API 2.0,.. items are submitted to a common information store queue as they are submitted to the information store. Each of these items receives a low priority in the queue, so that these items do not interfere with the scanning of the high-priority items...The priority of the items is dynamically upgraded to high priority if a client attempts to access the item while the item is in the low-priority queue" pg. 4). The Examiner interprets "client attempts to access the item" as an on-access scan request, and the new unchecked files migrated into the file server ("items submitted to the information store") as "on-demand" scan requests. Page 3 shows on-access scan requests being placed within "chunks" of on-demand scan requests.

Regarding Claim 12-13, 16, 18, 20, 24-25

McAfee teaches a method of operating a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the method comprising:

Combining on-demand anti-virus scan requests and on-access anti-virus scan requests in a virus scan request queue;

Distributing the on-demand anti-virus scan requests and the on-access virus

scan requests from the virus scan request queue to the virus checkers

("In virus scanning API 2.0,.. items are submitted to a common information store queue as they

are submitted to the information store. Each of these items receives a low priority in the queue,

so that these items do not interfere with the scanning of the high-priority items...The priority of

the items is dynamically upgraded to high priority if a client attempts to access the item while the

item is in the low-priority queue" pg. 4). The Examiner interprets "client attempts to access the

item" as an on-access scan request, and the new unchecked files migrated into the file server

("items submitted to the information store") as "on-demand" scan requests. Page 3 shows on-

access scan requests being placed within "chunks" of on-demand scan requests.

A pool of threads distributing the on-demand anti-virus scan requests and the on-

access scan requests from the request queue to the virus checkers, each anti-virus

scan request on the virus scan request queue being serviced by a respective on of the

threads in the pool of threads *("This queue is now serviced by a series of threads (the default*

number of threads is : 2* number of processors + one), with high-priority items always taking

precedence." pg. 3)("Each messaging Database receives on thread to conduct the background

scanning process" pg. 4)

Regarding Claim 14, 19, 26

McAfee teaches the method of claim 12, wherein the on-demand anti-virus scan

requests are produced in response to a system administrator requesting a scan of files

within a specified file system *(See pg. 4, API 2.0 Proactive scanning, API 2.0 Background scanning, also Groupshield is intended for system administrators)*

Regarding Claim 15, 21-23, 27-28

McAfee teaches the method of claim 12, which includes inhibiting the placement of at least one of the chunks onto the virus scan request queue until completion of anti-virus scanning for the anti-virus scan requests in a prior one of the chunks *("if a user accesses an item, it attains a high priority and jumps to the front of the queue" pg. 3 of McAfee)("The priority of the items is dynamically upgraded to high priority if a client attempts to access the item while the item is in the low-priority queue. A maximum of 30 items can exist at one time in the low-priority queue, which is determined on a first in, first out basis" pg 4 of McAfee) The Examiner interprets the maximum of 30 as inhibiting the placement of a chunk until a prior one is completed.*

McAfee also teaches wherein said processor is programmed for grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests into chunks. *(See page 3 of McAfee, shows "chunks" of on-demand requests in the global scanning queue)*

Regarding Claim 4, (103)

Smithson teaches the method as claimed in claim 1. Smithson does not explicitly teach wherein a pool of threads distribute the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective one of the threads in the pool of threads

McAfee teaches a pool of threads distribute the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective one of the threads in the pool of threads *("This queue is now serviced by a series of threads (the default number of threads is : 2* number of processors + one), with high-priority items always taking precedence." pg. 3)("Each messaging Database receives on thread to conduct the background scanning process" pg. 4)*

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the scan request queue of Smithson with a pool of scanning threads as taught by McAfee.

The motivation is to increase throughput or to "allow multiple items to be submitted…simultaneously" (pg. 3 of McAfee)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-7, 12, 24, 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Smithson in view of McAfee.

Regarding Claims 5, 7, 12, 16, 24

Smithson teaches the method of claim 1, but does not explicitly teach wherein the on-access anti-virus scan requests are given priority over the on-demand anti-virus scan requests by inhibiting the placement of on-demand anti-virus scan requests onto the virus scan request queue when the number of anti-virus scan requests reaches a threshold, and not inhibiting the placement of on-access anti-virus scan requests on the virus scan request queue when the number of requests reaches the threshold

McAfee teaches wherein the on-access anti-virus scan requests are given priority over the on-demand anti-virus scan requests by inhibiting the placement of on-demand anti-virus scan requests onto the virus scan request queue when the number of anti-virus scan requests reaches a threshold, and not inhibiting the placement of on-access anti-virus scan requests on the virus scan request queue when the number of requests reaches the threshold *("if a user accesses an item, it attains a high priority and jumps to the front of the queue" pg. 3 of McAfee)("The priority of the items is dynamically upgraded to high priority if a client attempts to access the item while the item is in the low-priority queue. A*

maximum of 30 items can exist at one time in the low-priority queue, which is determined on a

first in, first out basis" pg 4 of McAfee) McAfee teaches a first in, first out basis, which

anticipates "inhibiting the placement of at least on of the chunks onto the virus scan request

queue until completion of anti-virus scan requests in a prior one of the chunks.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Smithson to limit on-demand scan requests and not inhibit on-

access requests.

The motivation to not limit on-access requests is because they are high-priority

and the on-demand requests are limited because they are lower-priority.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over McAfee

in view of AAPA.

Regarding Claim 17 (103),

McAfee teaches the virus checking system of claim 16.

McAfee does not explicitly teach wherein the virus checkers are separate from the file

server.

Applicant Admitted Prior Art (AAPA) in the paragraph [0008] of the background of

the invention describes US20020129277, which teaches "the network files server

invokes a conventional virus checker in an NT file server to transfer pertinent from the

network file server to random access memory in the NT file server to perform an anti-

virus scan."

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify McAfee to include virus checkers separate from the file server.

The motivation is "A proxy server having a virus checker is an effective means for

virus protection" (Background of Applicants invention, paragraph [0007])

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to HARRIS C. WANG whose telephone number is

(571)270-1462. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, KAMBIZ ZAND can be reached on (571) 272-3811. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harris C Wang/
Examiner, Art Unit 2439

/Kambiz Zand/
Supervisory Patent Examiner, Art Unit 2434